Leveraging Human Factors to Improve CLABSI: Implementation of a Central Line Dressing Change Kit

Tara Benton  
*Children's Mercy Hospital*, tcbenton@cmh.edu

Barb Haney  
*Children's Mercy Hospital*, bhaney@cmh.edu

Lacey Bergerhofer  
*Children's Mercy Hospital*, lbergerhofer@cmh.edu

Susan Burns  
*Children's Mercy Hospital*, smburns@cmh.edu

Yolanda Ballam  
*Children's Mercy Hospital*, yballam@cmh.edu

*See next page for additional authors*

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**Recommended Citation**  
Benton, Tara; Haney, Barb; Bergerhofer, Lacey; Burns, Susan; Ballam, Yolanda; and Hoch, Kaitlyn, "Leveraging Human Factors to Improve CLABSI: Implementation of a Central Line Dressing Change Kit" (2018). *Posters*. 55.  
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Authors
Tara Benton, Barb Haney, Lacey Bergerhofer, Susan Burns, Yolanda Ballam, and Kaitlyn Hoch

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Leveraging Human Factors to Improve CLABSI: Implementation of a central line dressing change kit

Tara Benton, MD, MSCI, Barb Haney, RNC-NIC, MSN, CPNP-AC, FELSO; Lacey Bergerhofer, MSN, RN-BC; Susan Burns, MSN, RN; Yolanda Ballam, BS, CIC; Kaitlyn Hoch, MBA, BHS, RT(R)(ARRT)

Children’s Mercy Kansas City, Kansas City, Mo.

Background

- Central line associated blood stream infections (CLABSIs) were frequent in our institution and contribute to morbidity of our patients as well as cost of their stay.
- Maintenance of a central line is a complex process that relies heavily on human performance.
- Bedside apparent cause analyses identified the dressing change process as a leading risk factor for CLABSI.
- Success has been achieved in reliability to central line maintenance utilizing human factors engineering concepts in another institution.

Specific Aim

- Increase reliability of the dressing change process by implementing a dressing change kit and educating bedside staff in the use of the kit for routine central line dressing changes.
- Reduction of the institutional CLABSI rate.

Methods

- Multidisciplinary All Access Clinical Team and Vascular Access Team leaders collaborated to support dressing change kit implementation.
- VAT collaborated with unit CLABSI leads to optimize kits for our organizational needs.
- Kit contains multiple aspects designed to address human error through human factors engineering concepts.
- Simulation-based hands-on training for all nurses who interact with central lines from July-November 2017.
- Roll-out of dressing change kit and bedside nurse driven dressing changes December 2017.

Results

Implementation of a dressing change kit that addressed multiple aspects of human performance helped decrease the organizational CLABSI rate and improve reliability to the dressing change process.

Conclusions

The members of the All Access Clinical Team, VAT, Simulation Department, as well as bedside staff across the organization are the reason this project is a success. Their tireless efforts continue to keep our patients safe.

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References